



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/581,917

06/06/2006

Hitoshi Sato

4700.P0331US

9109

23474 7590 02/26/2009
FLYNN THIEL BOUTELL & TANIS, P.C.
2026 RAMBLING ROAD
KALAMAZOO, MI 49008-1631

EXAMINER

O BRIEN, JEFFREY D

ART UNIT

PAPER NUMBER

3677

MAIL DATE

DELIVERY MODE

02/26/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Response to Arguments

1. Applicant's arguments filed 1/30/2009 are not persuasive.
2. Regarding Claims 1-12, Applicant has argued that specific details are not taught in one reference that have been indicated to be taught in a separate reference. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
3. Regarding Claims 1 and 2, Applicant argues that '316 does not disclose a penetrating hole in the rotation shaft for a harness wiring. As noted in the above rejection, this limitation is taught by '333. Applicant further argues that one would not combine the shaft of '333 with the hinge of '316, however one of ordinary skill in the art looking to run a cable or wiring harness through a two-shaft hinge would appropriately look to any hinge having cables and wiring running through them. Therefore it would be appropriate to apply the penetrating hole in the shaft of '333 to the hinge of '312 in order to allow for the passing of a cable or wiring harness.
4. Applicant further argues that the shaft 312 of '316 does not perpendicularly penetrate through the center axis of the opening/closing shaft. However, it is clear that from Figure 2 that the axes of the opening/closing shaft and rotation shaft intersect perpendicularly. It is further noted that '316 as modified by '333 would be capable of having a wiring harness or cable run through the center of the shaft, as the shaft would appropriately have a center hole as is taught by '333.

5. It is further noted that the claim language of Claims 1 and 2 indicates "an axial direction of the rotation shaft and an axial direction of the opening/closing shaft are assembled to a hinge housing to be perpendicular to each other". This limitation requires only that the axes of the two shaft members are formed perpendicular, and does not necessitate that the shafts themselves intersect perpendicularly.

6. Regarding Claims 3 and 4, Applicant argues that '316 does not disclose the torque generating portions as claimed. However, it is clear from the disclosure that the torque units are assembled on the shafts and have a plurality of torque generating portions to generate torque by abutting the fixing cams with the rotating cams.

7. Regarding Claims 1 and 2, Applicant further argues that the references do not teach "continuous through-wiring from top to bottom" however this limitation is not claimed.

8. Regarding Claims 5 and 9, Applicant argues that '316 does not disclose the cross section of the shafts having non-circular portions. However, Column 6, Line 66 to Column 7, Line 20 of the English language equivalent document clearly indicates wherein the shaft has "a part of the side surface thereof... cut" and "the fixed cams 313a and 313b each have a hole corresponding to the sectional shape of the fixed shaft 312". Similar structure is disclosed for the opening/closing shaft.

9. Regarding Claim 6, Applicant argues that '316 does not disclose a limit rotation of the shafts, but instead teaches a limit rotation of upper-side body. It is noted however that as the upper side body is attached to the shafts, the limit of one is effectively the limit of the other.

10. Regarding Claim 8, Applicant argues the penetrating hole is not taught. '333 discloses a penetrating hole and has been shown to modify '316.

11. Regarding Claim 10, Applicant argues that the limitation of the rotation torque portion configured to the bottom portion is not taught. This has been addressed in the previous rejection and above and is reiterated here, that this is merely an integration of parts and that it would be obvious to form the cam surface integrally with the bottom surface to reduce parts and simplify manufacturing and assembly.

12. Regarding Claim 11, Applicant argues that the feature is not taught. As noted above, this is a product-by-process claim and as the structure is taught by the references, the rejection is appropriate.

13. Regarding Claim 12, Applicant is arguing that a base component is not taught. However, as outlined above, 301 is clearly a base component to which the shaft 312 is fixed. It is noted that Applicant is merely arguing the language of these parts and that "a fixing base component" and "a base bracket" are effectively different names for the same piece.

14. Regarding Claim 7, Applicant argues that although '872 teaches disk springs, it does not teach waved plate spring or thin plate spring. However, the use of alternative language "or" necessitates only one of the listed items be taught. Further, it is noted that disk springs, waved plate springs, and thin plate springs are all well known elements and that it would be obvious to one of ordinary skill in the art to substitute these elements for one another.

15. In response to Applicant's argument that the structure and size of '333 are highly different from that of '316, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

16. Further, it is noted that element 303 of '316 meets every structural limitation of the claimed housing. The fact that Applicant uses different terminology to describe this member does not preclude it from reading on the claimed housing.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey O'Brien whose telephone number is (571)270-3655. The examiner can normally be reached on Monday through Friday 8:00am-5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor Batson/
Supervisory Patent Examiner, Art Unit 3677

/JO/
JO